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Spectroscopy of $Sp(4)$ lattice gauge theory with $n_f = 3$ antisymmetric fermions

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We report on numerical results of masses and decay constants of the lightest pseudoscalar, vector and axial vector mesons in $Sp(4)$ lattice gauge theory with three Dirac flavours of fermions in the antisymmetric representation. In addition, we measure the masses of other flavoured mesons in the spin-0 and spin-1 channels, as well as the first excited state of the vector meson. Using the gradient flow method to set a common scale, we attempt to carry out the continuum extrapolation. In this setup, we also compute the masses of the chimera baryons composed of two fundamental and one antisymmetric fermion constituents.

Author: LEE, Jong-Wan (Pusan National University)

Co-authors: LUCINI, Biagio (Swansea University); LIN, C.-J. David (National Yang Ming Chiao Tung University); VADACCHINO, Davide (University of Plymouth); Prof. HONG, Deog Ki (Pusan National University); Dr BENNETT, Ed (Swansea University); HSIAO, Ho (National Yang Ming Chiao Tung University); PIAI, Maurizio (Swansea University)

Presenter: LEE, Jong-Wan (Pusan National University)

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